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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/398,106	09/16/1999	KENICHI MARUTANI	FUJH-16.361	9635

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EXAMINER

ABELSON, RONALD B

ART UNIT PAPER NUMBER

2663

DATE MAILED: 08/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/398,106

Applicant(s)

MARUTANI, KENICHI

Examiner

Ronald Abelson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 August 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 September 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other:

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*Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-3 and 8-10 are rejected under 35 U.S.C. 102(3) as being anticipated by Ishikawa (US 6,154,506).

Regarding claims 1 and 9, Ishikawa teaches a method and apparatus for a synchronization protecting and setting system for signals received in a radio base station (fig. 7, col. 6 line 48 - col. 7 line 14). The system comprises a first means for generating a first word/pulse detecting window (fig. 5 time window 501-2, col. 5 line 58 - col. 6 line 5); a second means

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for generating a second word/pulse detecting window (fig. 5 time window 501-3, col. 5 line 58 - col. 6 line 5); a means for detecting the synchronized word/pulse in the first or second window (threshold level, col. 5 line 58 - col. 6 line 5); and a control means for setting the second window based upon the first window (fig. 4, col. 4 lines 38 - 58).

Note, a pulse can be viewed as a word consisting of a string of identical bits.

Regarding claim 2, the detecting means detects the synchronized word/pulse within the second synchronized word-detecting window in the next frame (col. 3 lines 26 - 42).

Regarding claim 3, the control means resets the position of the second synchronized word detecting window, when a bit error rate is more than a predetermined value (the AND operation result is not the maximum value, col. 7 lines 39 - 55).

Regarding claim 8, the control means resets the position of the second synchronized word-detecting window, when the level of the signal received is less than a predetermined value (the previous center point of the time window and the previous optimum sampling points are maintained, col. 7 lines 39 - 55).

Regarding claim 10, in addition to the limitations listed in claims 1 and 9, outputting a synchronized word detecting pulse (sampling point group signals, col. 6 line 65 - col. 7

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line 14). Although Ishikawa does not teach an AND condition between the results of the first and second windows, the inventor does teach a method for setting the location of the next detection window. As previously stated, the window location is not updated if the threshold condition is not met.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5 and 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa as applied to claim 1 above, and further in view of Petch (US 6,243,372).

Regarding claim 7, Ishikawa is silent on the use of coding techniques for improving synchronization results.

Petch uses CRC as a control means for synchronization (col. 11 lines 45 - 67).

Therefore it would have been obvious to one of ordinary skill in the art, having both Ishikawa and Petch before him/her

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and with the teachings [a] as shown by Ishikawa, a synchronization protecting and setting system for signals received in a radio base station, and [b] as shown by Petch, CRC as a control means for synchronization, to be motivated to modify the system of Ishikawa by adding CRC to the transmitted frames. The CRC error checking could be could be performed in software. This would improve the system by adding a proven error checking means.

Regarding claim 5, the combination of Ishikawa and Petch teaches phase lock loop (fig. 3 box 55, col. 8 line 59 - col. 9 line 6).

5. Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Ishikawa and Petch as applied to claim 1 above, and further in view of Mowbray (US 6,119,263).

The combination of Ishikawa and Petch teaches CRC coding (Petch: col. 11 lines 45 - 67), but is silent on the use of BCH decoding.

Mowbray teaches CRC coding in combination with BCH decoding (abstract).

Therefore it would have been obvious to one of ordinary skill in the art, having both the combination of Ishikawa and Petch and Mowbray before him/her and with the teachings [a] as

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shown by the combination of Ishikawa and Petch, a method and apparatus for synchronization in a wireless network using CRC coding, and [b] as shown by Mowbray CRC coding in combination with BCH decoding, to be motivated to modify the system of the combination of Ishikawa and Petch to include BCH decoding. This algorithm could be implemented in software. This would improve the system in respect to error detection (Mowbray: abstract).

6. Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Ishikawa and Petch as applied to claim 1 above, and further in view of Hosford (US 5,943,328).

The combination of Ishikawa and Petch teaches CRC coding, but is silent on the use of the use of color-coding.

Hosford teaches CRC coding in combination with color-coding (col. 3 lines 40 - 49).

Therefore it would have been obvious to one of ordinary skill in the art, having both the combination of Ishikawa and Petch and Hosford before him/her and with the teachings [a] as shown by the combination of Ishikawa and Petch, a method and apparatus for synchronization in a wireless network using CRC coding, and [b] as shown by Hosford CRC coding in combination with color coding, to be motivated to modify the system of the

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combination of Ishikawa and Petch to include a color code field in the transmitted data packet. This would improve the system by making it compliant with IS 136 Revision A (Hosford: col. 3 lines 40 - 49).

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

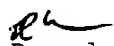


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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (703) 306-5622. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

  
Ronald Abelson  
Examiner  
Art Unit 2663

  
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August 19, 2002



CHAU NGUYEN  
SUPERVISORY PATENT EXAMINER  
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